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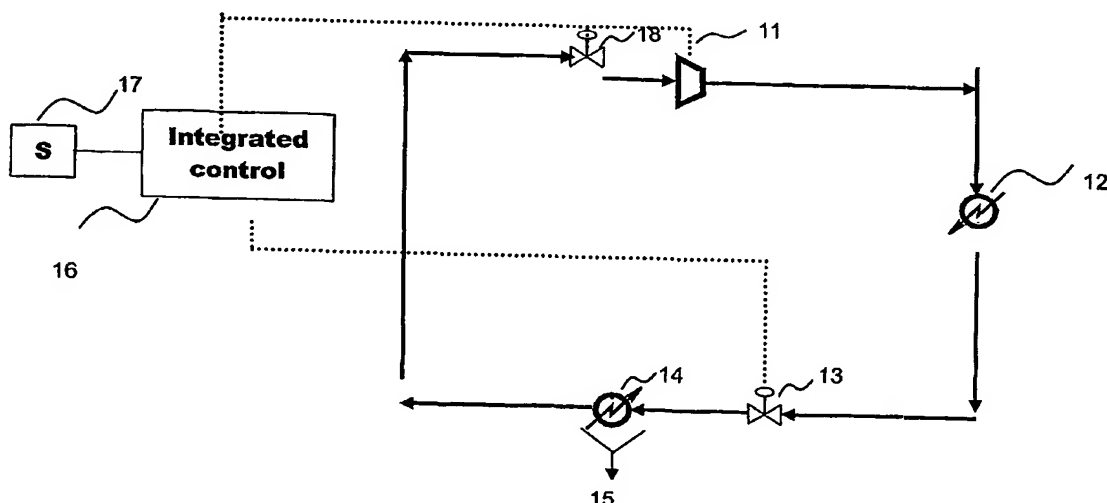
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(54) Title: DEHUMIDIFIER DRIER FOR PASTES, LIQUORS AND AGGREGATE MATERIALS



(57) Abstract: A process and apparatus for drying pastes, liquors and aggregate materials by means of a heat integrated and/or heat pumping process and/or apparatus is disclosed. This includes a heat pump or heat integrated apparatus operable in a drying apparatus with the heat pump evaporator (36) or cold heat exchanger in primary thermal contact with the drying gas medium (33) after said drying gas medium (33) has taken up moisture from the material being dried (35) and the heat pump condenser (14) or hot heat exchanger (36) in primary thermal contact with the material being dried and with both the drying gas medium (33) and any heat pump refrigerant in nominally closed loop circulation paths (22). This process and apparatus may provide improved efficiency and reduced costs by reducing the required flow of drying gas through the system since that drying gas is no longer the primary means for supplying heat to the material being dried.